

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON
MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON

REPORT
RAPPORT

Our File/N/Réf.
Your File/V/Réf.

DATE 8 June 1998

TO/DEST. Co-ordinator
Corporate Services and Economic Development Committee

FROM/EXP. Environment and Transportation Commissioner

SUBJECT/OBJET **FINANCIAL SYSTEMS RENEWAL**
SAP PLANT MAINTENANCE MODULE

DEPARTMENTAL RECOMMENDATION

That the Corporate Services and Economic Development Committee and Council approve the following:

- 1. The establishment of a Capital project in the amount of \$690,000 for the implementation of SAP/R3 Plant Maintenance for the Water Environment Protection Division;**
- 2. A contract authority of \$590,000 with SAP Canada Inc. for the provision of implementation consulting resources and training services;**
- 3. The transfer of funds in the amount of \$150,000 from 912-17954, Year 2000 Capital Project;**
- 4. The transfer of funds in the amount of \$540,000 from the Sewer Capital Reserve Fund.**

BACKGROUND

In the last year, the Finance Department initiated a review of its financial system with the objective of becoming more effective while addressing the Year 2000 issue of its current system. The Financial System Renewal sought to achieve a number of Best Practices, including eliminating 100 percent of duplication of effort and/or systems in the capture, manipulation and reporting of data, reducing by 25 percent the overall cost of financial transaction processing and improving by 50 percent the turnaround time associated with providing key financial information.

SAP, being an enterprise solution, was recommended as it would enable capturing these efficiencies much better by having uniformity of certain processes across the organization.

In February 1998, Regional Council and the Ottawa-Carleton Regional Transit Commission, approved the purchase of the SAP enterprise product. The scope of Phase 1 of the SAP enterprise solution implementation includes a number of business application modules, as well as the building of the required interfaces with the operating departments' existing systems. One of the interfaces required is the link between the SAP-Materials Management module and, the existing Cassworks system software in the Water Environment Protection Division (WEPD), which currently provides an integrated computerized management of the materials and maintenance components of the Divisional activities.

The Environment and Transportation Department recognized the benefits of a truly integrated enterprise system that would link all activities, whether they be of a financial, maintenance management, materials management, human resources, project scheduling or asset management nature. Accordingly, as a result of the inclusion of the materials management module within Phase 1 of the Financial System Renewal project and the direct link with maintenance activities, the Environment and Transportation Department advanced its review of the SAP Plant Maintenance module to maximize the benefits of the SAP enterprise solution.

DISCUSSION

There are numerous Maintenance Management Systems within the Environment and Transportation Department and each one has different levels of integration and interaction with the corporate financial, human resources and inventory/purchasing systems. In some instances, this integration can be as simple as a manual inputting of information or comparison of reports. In others, it is necessary to have a live link between various computer software applications.

The need for a close integration between the corporate Stores area and the WEPD Cassworks system, combined with the fact that Cassworks requires an upgrade to be Year 2000 compliant, provided the necessary incentives to focus the assessment of the SAP Plant Maintenance module from a plant perspective. The Water Division's current plant maintenance management system, initially purchased in 1988, is Year 2000 compliant but lacks the flexibility and efficiencies currently available though the more recent integrated systems.

The SAP Plant Maintenance module assessment included meetings with SAP representatives, product demonstration based on typical maintenance activities in a plant such as a water purification or wastewater treatment facility as well as attendance at the SAP Users conference. This assessment concluded that the SAP Plant Maintenance module provides the basic components of a computerized maintenance management system for the requirements identified within WEPD and the Water Division. This integrated system would link the operations directly to the financial system and the materials management system thereby enabling the recording and tracking of operation and maintenance expenses with relative ease and complete accuracy. In conducting the assessment, it was also evident that the development work on the SAP Plant Maintenance module is consistent with the stated commitment of the company to deliver a product which will be known as the "best of class" within the industry. The driving force to

implement the SAP Plant Maintenance at this time is predominant within WEPD. The Water Division endorses the SAP system and is planning for a subsequent implementation phase. It is, however, recommended that both the Water Division and WEPD participate in the identification of the business requirements at this time to facilitate subsequent implementation at the Water Purification Plants.

The additional financial resources necessary to proceed with the Plant Maintenance module as part of Phase 1 of the Financial System Renewal are estimated to be \$690,000. This estimate considers the additional SAP consulting fees and training requirements.

RECOMMENDATION

In selecting the SAP product, the RMOC and OC Transpo recognized that it was an enterprise solution and that efficiencies can best be captured by having uniformity of processes across the organization. To that effect, the RMOC has already extended that logic to the materials management component.

For operations that are asset intensive such as water and wastewater services, maintenance management is a critical component of any programme aimed at maximizing productivity and efficiency. Typically, a programme-driven maintenance will save 40 percent of the cost of maintenance conducted in a reactive manner. Once fully implemented, the SAP Plant Maintenance system will be impacting the maintenance activities of over \$2 billion of water and wastewater infrastructure. Accordingly, it is important to ensure that efficiencies gained through the integration of materials management with the financial component do not result in the creation of inefficiencies on the maintenance management side.

Of the existing maintenance management systems within the Environment and Transportation Department, the WEPD Cassworks system offers the most incentives for replacement as a result of its Year 2000 non-compliance issue and the lost efficiencies with the conversion of the materials management system to SAP. Since the Water Division's maintenance management system is Year 2000 compliant, it will be the next candidate for conversion to SAP after the initial SAP implementation phase. The anticipated implementation timeframe within the Water Division is 2000-2001.

It is therefore recommended to proceed with the identification of the Plant Maintenance requirements for WEPD and the Water Division as part of Phase 1 of this Financial System Renewal project and, to implement the SAP Plant Maintenance module within WEPD during this timeframe.

This approach would have the following benefits:

- Elimination of the requirement to build an interface between SAP Materials Management and Cassworks. This task was expected to be challenging as it would have required developers who are experienced both in SAP and Cassworks. In addition, the interface may have become the limiting factor in the effectiveness of both Cassworks and SAP Materials Management module.

- Elimination of the need to upgrade Cassworks (\$150,000 budgeted in 1998 for Year 2000). In addition, there are serious concerns that the maintenance management functionality and capability of Cassworks would become limited once the Cassworks materials management component is no longer in place.
- Consistency with the FSR objective of eliminating duplication of effort and systems in the capture, manipulation and reporting of data.
- Demonstration of the corporate commitment to an enterprise solution. By including such essential operational services in Phase 1 of the FSR project, it strengthens the level of co-operation between the financial and operating activities and provides a sound foundation for acceptance of the SAP product as a long-term corporate solution.

CONSULTATION

The public consultation process is not applicable since it only impacts the business interactions conducted internally.

EXPENDITURE JUSTIFICATION

The selection of the SAP enterprise solution was based on the benefits of having uniformity of processes throughout the corporation. Accordingly, the inclusion of WEPD in the Plant Maintenance module and, the identification of the business requirements for the Water Division is consistent with the long-term vision of our business practices.

Not proceeding at this time with the SAP Plant Maintenance module would only be postponing the inevitable. In addition, the long-term cost would be higher since the cost of Cassworks upgrade would be lost and, the interface between Cassworks and SAP would be redundant.

Through this project, the Environment and Transportation Department will continue to improve its competitive position in the industry thereby resulting in positive financial impact for the taxpayers.

Funds are available for this project as follows:

- a) Capital Project 912-17954 Year 2000 in the amount of \$150,000,
- b) Sewer Capital Reserve Fund in the amount of \$540,000

Approved by
M. J. E. Sheflin, P. Eng.
FJ/jp/jes

FINANCE DEPARTMENT COMMENT

Funds in the amount of \$690,000 are available for transfer from 912-17954 Year 2000 Capital Project (\$150,000) and the Sewer Capital Reserve Fund (\$540,000). Subject to Council approval.

*Approved by C. Colaiacovo
on behalf of the Finance Commissioner*